

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 05/09/2005 has been entered.

### ***Terminal Disclaimer***

The terminal disclaimer filed on 07/15/2005 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of copending application no. 10/053,115 (now U.S. Patent No. 6,961,734) has been reviewed and is accepted. The terminal disclaimer has been recorded.

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

### **EXAMINER'S AMENDMENT**

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such a amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with instant application attorney David Victor on 08/15/2005.

#### **Amendment:**

The application has been amended as follows:

Claims 11, 23-25, 30-32 and 34 have been amended as follows:

Claim 11 (Currently Amended):

The method of claim ~~10~~ 1, further comprising:  
in response to receiving a user entered asset name for the query,  
determining attribute operators associated with attributes of the asset name;  
generating a display of a list of the determined attribute operators; and  
receiving user selection of one of the determined attribute operators from  
the displayed list, wherein the user selected attribute operator is used in the  
query.

Claim 23 (Currently Amended):

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The system of claim 22 12, further comprising:

means for determining attribute operators associated with attributes of the asset name in response to receiving a user entered asset name for the query;

means for generating a display of a list of the determined attribute operators; and

means for receiving user selection of one of the determined attribute operators from the displayed list, wherein the user selected attribute operator is used in the query.

Claim 24 (Currently Amended):

~~An article of manufacture~~ A computer readable storage medium including code ~~implemented in a computer readable medium~~ that is executed ~~[[to]]~~ to query instances of asset classes in a digital library coupled to a graphical user interface, wherein the code causes operations comprising:

providing at least one asset class having at least one attribute, wherein each attribute is defined to have an attribute object comprising an external data object and attribute object type identifying a type of the attribute object, wherein the attribute object type indicates one of a plurality of different data structure formats searchable through separate application programs, wherein the data structure include a multimedia file, a database object accessed through a database application program, and a text object accessed through a text search engine application program;

providing an asset object for each instance of one asset class and information on a file location of attribute objects providing the attributes for the asset object instance, wherein the asset object includes information for the attributes in the instance of the asset class;

presenting the graphical user interface including fields for receiving user input from a window having predefined scrollable items for generating a query indicating an asset name, search predicate, at least one attribute operator, and

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attribute value, wherein the attribute operator is associated with at least one attribute included in the asset object having the indicated asset name; and

processing the query by:

determining asset object instances of the indicated asset name having one attribute object for the attribute associated with the attribute operator;

accessing the attribute object for the attribute associated with the attribute operator at the file location indicated in the determined asset object instance;

determining from the object type for the attribute associated with the attribute operator one application program for accessing the data structure format of the attribute object type; and

calling the determined application program to determine whether the accessed attribute object satisfies the search predicate and the attribute value in the query.

Claim 25 (Currently Amended):

The ~~article of manufacture~~ computer readable storage medium of claim 24, wherein the query includes multiple attribute operators and attribute values to query asset object instances whose attribute objects match the attribute values and search predicate for each attribute operator.

Claim 30 (Currently Amended):

The ~~article of manufacture~~ computer readable storage medium of claim 24, wherein one attribute comprises a relationship attribute that defines an association of a first and second asset types and a relationship attribute object associating instances of the first and second asset types, wherein the attribute operator for a relationship attribute is associated with one attribute from the first and second asset types, wherein processing the query to search the attribute object for each asset object instance of the first asset type further comprises:

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accessing the relationship attribute object to determine all asset object instances of the second asset type associated with the asset object instance; and  
for each determined asset object instance, processing the query by determining the determined asset object instances of the second asset type whose attribute object for the attribute of the second asset type associated with the attribute operator matches the attribute value and satisfies the search predicate.

Claim 31 (Currently Amended):

The ~~article of manufacture~~ computer readable storage medium of claim 30, wherein the relationship attribute object comprises a database table, wherein a first column in the database table is for unique identifiers of instances of the first asset type and a second column in the database table is for unique identifiers of instances of the second asset type, wherein a row in the database table identifies one instance of the first asset type identified by the unique identifier in the first column of the row that is associated with one instance of the second asset type identified by the unique identifier in the second column of the row.

Claim 32 (Currently Amended):

The ~~article of manufacture~~ computer readable storage medium of claim 24, wherein the definition of each attribute for an asset class is implemented in an Extensible Markup Language (XML) document, wherein each defined attribute for an asset class comprises a tagged element in the XML document and wherein information for each attribute is embedded in at least one tagged attribute of the tagged element for the attribute.

Claim 34 (Currently Amended):

The ~~article of manufacture~~ computer readable storage medium of claim 33 24, further comprising:

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in response to receiving a user entered asset name for the query,  
determining attribute operators associated with attributes of the asset name;  
generating a display of a list of the determined attribute operators; and  
receiving user selection of one of the determined attribute operators from  
the displayed list, wherein the user selected attribute operator is used in the  
query.

***Allowable Subject Matter***

Claims 1-2, 7-9, 11-12, 14, 19-21, 23-25, 30-32 and 34 are allowed.

The following is an examiner's statement of reasons for allowance:

The following is an examiner's statement of reasons for allowance:

Claims 1, 12, and 24 are allowable because the prior art on record or that encountered in searching for the invention, fails to disclose or suggest the features of instant invention – a digital library has defined assets classes that coupled to a user interface for querying instance of asset classes of the library, wherein, the at least one of the attributes of asset classes defined an external data object and the type of the object that indicate one of a plurality of different data structure format including a multimedia file, a database object, and a text object that are searchable through separate application programs. And the graphical user interface has predefined scrollable items to facilitate the generation of a query that indicates an asset name, search predicate, at least one attribute operator and attribute value included in the asset object via the

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indicated asset name; and process the query instance upon the defined asset classes of the digital library accordingly in a combination as claimed by applicant.

Claims 2, 7-9, 11, 14, 19-21, 23, 25, 30-32 and 34 are respectively depend on claims 1, 12 and 24 therefore are allowable.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Susan Y. Chen whose telephone number is 571-272-4016. The examiner can normally be reached on Monday - Friday from 7:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Safet Metjahic can be reached on 571-272-4023. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Susan Y Chen  
Examiner  
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October 14, 2004